

Claims

- [c1] A method of tracking the topology of a packet-switched network comprising:
(a) passively monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol; and
(b) using information in the link state advertisements to construct a topology view of the network.
- [c2] The method of claim 1 wherein the link state advertisements are monitored using reflectors established in adjacency with the routers in the network.
- [c3] The method of claim 2 wherein topology view is constructed by an aggregator in communication with the reflectors established in adjacency with the routers in the network.
- [c4] The method of claim 1 wherein the link state routing protocol is OSPF.
- [c5] The method of claim 4 wherein the link state advertisements are monitored using reflectors established in adjacency with the routers in the network and wherein the adjacency is established by placing the routers in an intermediate loading state.
- [c6] A system for tracking the topology of a packet-switched network comprising:
one or more reflectors which are capable of monitoring link state advertisements flooded through the network by routers in the network participating in a link state routing protocol; and
an aggregator which is capable of receiving topology information from each of the reflectors and constructing a topology view of the network.
- [c7] The system of claim 6 wherein the link state advertisements are monitored by establishing an adjacency with the routers in the network.
- [c8] The method of claim 6 wherein the link state routing protocol is OSPF.
- [c9] A device-readable medium storing program instructions for performing a method of monitoring link state advertisements flooded in packet-switched network, the method comprising the steps of:

establishing a connection to a router;
initiating synchronization with a link state database at the router without
completing the synchronization, thereby creating an intermediate loading state;
maintaining the intermediate loading state so that link state information can be
received and processed without participating in link state routing calculations.

[c10] The method of claim 9 wherein the link state routing protocol is OSPF.

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